

Claims

Claims 24-30 remain in the application. Claims 6-23 and 31-54 have been canceled. Claims 24 and 29 have been amended. Claims 55-61 have been added.

1-23. (Canceled)

24. (Currently Amended) A method of creating links between multiple subscriber end stations and multiple network domains comprising:

providing a network device including an electronic memory encoded with multiple respective virtual routers, each of said respective virtual routers including ~~respective corresponding network databases which~~ includes respective control information to forward data within a respective network domain, said each of respective virtual routers respectively ~~each~~ including at least one respective network interface for a the respective network domain;

providing respective subscriber records in an electronic memory that include respective information as to network domains to which respective subscriber end stations of respective subscribers ~~may~~ can access;

providing multiple respective sub-interface data structures in the electronic memory respectively associated with respective subscribers;

searching respective subscriber records to identify respective network domains that may be accessed by a respective subscriber end station of a respective subscriber; and

creating respective binding data structures that respectively bind respective sub-interface data structures respectively associated with respective subscribers to

respective network interfaces for respective network domains identified from searching respective subscriber records.

25. (Original) The method of claim 24 further including:
providing respective subscriber authentication information and respective subscriber authorization information in respective subscriber records;
providing subscriber authentication and authorization services; and
authenticating and authorizing subscriber access to respective network domains using respective subscriber records and the subscriber authentication and authorization services.

26. (Original) The method of claim 24 wherein,
the multiple respective sub-interface data structures include multiple respective virtual circuits.

27. (Original) The method of claim 24 further including:
providing in respective subscriber records multiple possible network domain binding options for a respective subscriber.

28. (Original) The method of claim 24 wherein,

information in respective subscriber records identify multiple respective possible network domains to which respective subscriber end stations of respective subscribers may be bound; and

information in respective subscriber records provide respective criteria for selecting between multiple respective network domains for a respective subscriber.

29. (Currently Amended) A subscriber management system comprising:

a network device including an electronic memory encoded with multiple respective virtual routers in the memory, each of said respective virtual routers ~~including corresponding respective network databases which~~ includes respective control information to forward data within a respective network domain, said each of respective virtual routers respectively including at least one respective network interface to a the respective network domain;

respective subscriber records in an electronic memory that include respective information as to network domains to which respective subscriber end stations of respective subscribers ~~may be~~ are bound;

multiple respective sub-interface data structures in the electronic memory respectively associated with respective subscribers;

a computer program in electronic memory that searches respective subscriber records to identify respective network domains that may be accessed by respective subscriber ends stations of respective subscribers; and

respective binding data structures that respectively bind respective sub-interface data structures associated with respective subscribers to respective network interfaces to respective network domains identified from searching respective subscriber records.

30. (Original) The system of claim 29 wherein,

information in respective subscriber records identify multiple respective possible network domains to which respective subscriber end stations of respective subscribers may be bound; and

information in respective subscriber records provide respective criteria for selecting between multiple respective network domains for respective subscribers.

31-54. (Canceled)

55. (New) The method of claim 24, further comprising:

dynamically binding subscribers to respective network interfaces for respective network domains with the respective binding data structure.

56. (New) The method of claim 55, further comprising:

changing the binding of one of the subscribers to a different one of the network interfaces for a different one of the network domains, where in the change is based on the one subscriber's subscriber record.

57. (New) The method of claim 56, wherein the binding change is based on time of

day.

58. (New) The system of claim 29, further including:

respective subscriber authentication information and respective subscriber authorization information in respective subscriber records,

wherein the computer program further includes subscriber authentication and authorization services; and authenticating and authorizing subscriber access to respective network domains using respective subscriber records and the subscriber authentication and authorization services.

59. (New) The system of claim 29, wherein the computer program further comprises:

dynamically binding subscribers to respective network interfaces for respective network domains with the respective binding data structure.

60. (New) The system of claim 59, wherein the computer program further comprises:

changing the binding of one of the subscribers to a different one of the network interfaces for a different one of the network domains, where in the change is based on the one subscriber's subscriber record.

61. (New) The system of claim 60, wherein the binding change is based on time of day.